

## PATENT COOPERATION TREATY

## PCT



## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference OP04-1022	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/KR2004/000722</b>	International filing date(day/month/year) <b>30 MARCH 2004 (30.03.2004)</b>	Priority date (day/month/year) 04 APRIL 2003 (04.04.2003)	
International Patent Classification (IPC) or national classification and IPC  <b>IPC7 A61K 31/352, A61K 31/7048, A61K 35/78, A61P 37/00</b>			
Applicant  <b>CELLMICS CO., LTD. et al</b>			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:           <ul style="list-style-type: none"> <li><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> </li> <li>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).</li> </ul>
4. This report contains indications relating to the following items: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the report</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>

Date of submission of the demand  <b>22 SEPTEMBER 2004 (22.09.2004)</b>	Date of completion of this report  16 MAY 2005 (16.05.2005)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer  LEE, Mi Jeong  Telephone No. 82-42-481-5601 

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☒ This report is based on translations from the original language into the following language English which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☒ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 1 - 8

because:

☐ the said international application, or the said claims Nos. \_\_\_\_\_  
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. \_\_\_\_\_  
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. \_\_\_\_\_ are so inadequately supported  
by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 1 - 8

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the  
Administrative Instructions in that:

the written form

☐

has not been furnished

☐

does not comply with the standard

the computer readable form

☐

has not been furnished

☐

does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with  
the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See Supplemental Box for further details.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	11, 12, 14, 15	YES
	Claims	9, 10, 13	NO
Inventive step (IS)	Claims		YES
	Claims	9 - 15	NO
Industrial applicability (IA)	Claims	9 - 15	YES
	Claims		NO

**2. Citations and explanations (Rule 70.7)**

The following documents have been considered for the purpose of this report:

D1: Pharmacol. Res., 40(1), 31-36 (1999)

D2: J. Nat. Prod., 62, 294-296 (1999)

**1. Novelty**

Claims 9, 10, and 13 of the present invention relate to a composition comprising black rice extract for the prevention or treatment of allergic diseases such as atopic dermatitis, etc.

D1 discloses that black rice extract inhibits the release of histamine causing various allergic diseases, which is the same as the present invention.

Therefore, claims 9, 10, and 13 of the present invention are not considered to be novel over D1.

Claims 11, 12, 14, and 15 relate to a composition comprising peralgonidine, peralgonidine glycoside or cyanidine glycoside for the prevention or treatment of allergic diseases such as atopic dermatitis, etc.

D1 discloses that black rice extract inhibits the release of histamine causing allergic diseases such as atopic dermatitis, etc.

D2 discloses that anthocyanins have anti-inflammatory effects.

None of the prior arts described that peralgonidine, peralgonidine glycoside or cyanidine glycoside can prevent or treat allergic diseases such as atopic dermatitis, etc.

Therefore, claims 11, 12, 14, and 15 of the present invention are considered to be novel over D1 and D2 [Article 33(2) PCT].

**2. Inventive Step**

Since the novelty of claims 9, 10, and 13 cannot be acknowledged over D1, the inventive step of them cannot be acknowledged, either.

(Continued on the Supplemental Sheet.)

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.  
Continuation of:

Box V.

Claims 11, 12, 14, and 15 relate to a composition comprising peralgonidine, peralgonidine glycoside or cyanidine glycoside, one of the anthocyanines for the prevention or treatment of allergic diseases such as atopic dermatitis, etc.

D2 discloses that anthocyanines have anti-inflammatory effects.

It is well known that most of allergic diseases results in inflammatory symptoms such as atopic dermatitis, allergic rhinitis, allergic conjunctivitis, etc.

Utilizing various kinds of anthocyanines including peralgonidine, peralgonidine glycoside or cyanidine glycoside for the treatment of allergic diseases causing inflammatory symptoms as suggested in the present invention can be easily expected by a man skilled in the art from the fact that anthocyanines including cyanidine have anti-inflammatory effects as disclosed in D2.

Therefore, claims 11, 12, 14, and 15 of the present invention are not considered to involve an inventive step [Article 33(3) PCT].

### 3. Industrial Applicability

The subject matter of claims 9–15 appears to be industrially applicable [Article 33(4) PCT].